STRUCTURE SEARCH

```
=> d his l39

     (FILE 'HCAPLUS' ENTERED AT 15:37:20 ON 23 APR 2009)
L39          27 S L35 AND (L37 OR L38)
                SAV TEMP L39 PEZ397HCP/A

=> d que stat l39
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L16             STR
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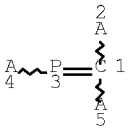


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NODE ATTRIBUTES:
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NSPEC   IS RC     AT   4
NSPEC   IS RC     AT   5
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   5

STEREO ATTRIBUTES: NONE
L18             STR
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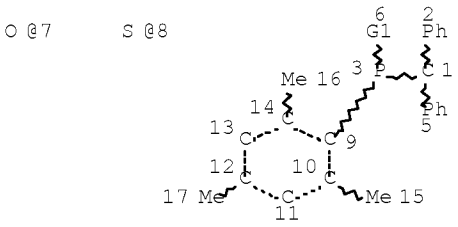


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CONNECT IS E1  RC AT   8
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  16

STEREO ATTRIBUTES: NONE
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L22           2 SEA FILE=REGISTRY SUB=L19 SSS FUL L18
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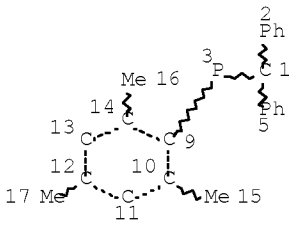


NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L31	42	SEA FILE=REGISTRY SUB=L19 SSS FUL L29
L32	2	SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L22 AND L19
L33	15	SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L19 AND PMS/CI
L34	50	SEA FILE=REGISTRY SPE=ON ABB=ON PLU=ON L27 OR (L31 OR L32 OR L33)
L35	40	SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L34
L37		QUE SPE=ON ABB=ON PLU=ON PY=<2003 NOT P/DT
L38		QUE SPE=ON ABB=ON PLU=ON (PY=<2003 OR PRY=<2003 OR AY=<2003 OR MY=<2003 OR REVIEW/DT) AND P/DT
L39	27	SEA FILE=HCAPLUS SPE=ON ABB=ON PLU=ON L35 AND (L37 OR L38)

STRUCTURE SEARCH RESULTS

=> d l39 1-27 ibib ed abs hitstr hitind

L39 ANSWER 1 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2004:534258 HCAPLUS Full-text
DOCUMENT NUMBER: 141:89559
TITLE: Polymerization of phosphaalkenes
INVENTOR(S): Gates, Derek; Tsang, Chu-win; Yam, Mandy
PATENT ASSIGNEE(S): The University of British Columbia, Can.
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004055098	A2	20040701	WO 2003-CA1982	2003 1216 <--
WO 2004055098	A3	20040902		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2508979	A1	20040701	CA 2003-2508979	2003 1216 <--
AU 2003292925	A1	20040709	AU 2003-292925	2003 1216 <--
US 20060270805	A1	20061130	US 2006-539397	2006 0117 <--
PRIORITY APPLN. INFO.:			US 2002-433507P P	2002 1216 <--
			WO 2003-CA1982 W	2003 1216 <--

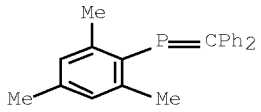
ED Entered STN: 02 Jul 2004
AB Methods for polymerization of phosphaalkenes using initiators are provided. Also provided are polymers and copolymers in which the polymer backbone contains tracts of carbon and phosphorus atoms in approx. equimolar amts. C-P bonds in the polymers of this invention may be predominantly in a head-to-tail arrangement or mixed arrangements. Copolymers may comprise polyolefin monomer units. Thus, 20.0 g mesityl bis(trimethylsilyl)phosphine and 12.3 g benzophenone was reacted in the presence of anhydrous potassium hydroxide and distiled at 150-160° to give 12.0 g

mesityl(diphenylmethylene)phosphine, 1.00 g of which was polymerized in the presence of 0.08 g VAZO 88
1,1'-azobis(cyclohexanecarbonitrile) at 200° for 48 h to give a copolymer with yield 16%.

IT 67565-91-7P, Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)-
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(monomer or optionally intermediate for initiator preparation; polymerization of phosphaalkenes)

RN 67565-91-7 HCAPLUS

CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



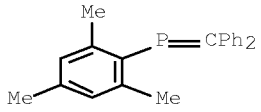
IT 501418-46-8P, Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)-, homopolymer
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(optionally intermediate; polymerization of phosphaalkenes)

RN 501418-46-8 HCAPLUS

CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)-, homopolymer (CA INDEX NAME)

CM 1

CRN 67565-91-7
CMF C22 H21 P



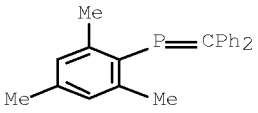
IT 501418-46-8DP, Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)-, homopolymer, modified
713542-93-9DP, oxidized 713542-95-1DP, oxidized
713542-97-3DP, oxidized 713542-99-5DP, oxidized
713543-00-1P 713543-01-2DP, oxidized
713543-02-3DP, oxidized 713543-03-4DP, oxidized
RL: IMF (Industrial manufacture); PREP (Preparation)
(polymerization of phosphaalkenes)

RN 501418-46-8 HCAPLUS

CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)-, homopolymer (CA INDEX NAME)

CM 1

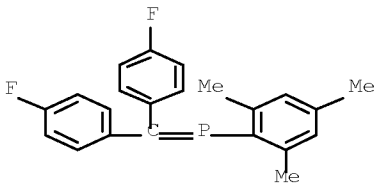
CRN 67565-91-7
CMF C22 H21 P



RN 713542-93-9 HCAPLUS
CN Phosphine, [bis(4-fluorophenyl)methylene](2,4,6-trimethylphenyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

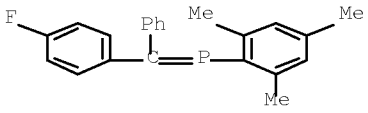
CRN 713542-92-8
CMF C22 H19 F2 P



RN 713542-95-1 HCAPLUS
CN Phosphine, [(4-fluorophenyl)phenylmethylene](2,4,6-trimethylphenyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

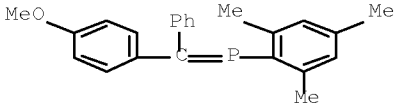
CRN 713542-94-0
CMF C22 H20 F P



RN 713542-97-3 HCAPLUS
CN Phosphine, [(4-methoxyphenyl)phenylmethylene](2,4,6-trimethylphenyl)-, homopolymer (CA INDEX NAME)

CM 1

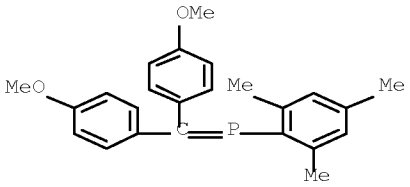
CRN 713542-96-2
CMF C23 H23 O P



RN 713542-99-5 HCAPLUS
CN Phosphine, [bis(4-methoxyphenyl)methylene](2,4,6-trimethylphenyl)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

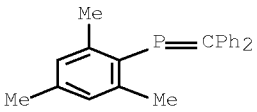
CRN 713542-98-4
CMF C24 H25 O2 P



RN 713543-00-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with (diphenylmethylene)(2,4,6-trimethylphenyl)phosphine (9CI) (CA INDEX NAME)

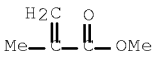
CM 1

CRN 67565-91-7
CMF C22 H21 P



CM 2

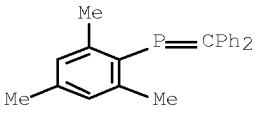
CRN 80-62-6
CMF C5 H8 O2



RN 713543-01-2 HCAPLUS
CN 2-Propenoic acid, 2-ethylhexyl ester, polymer with (diphenylmethylene)(2,4,6-trimethylphenyl)phosphine (9CI) (CA INDEX NAME)

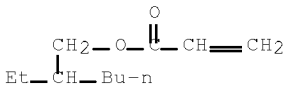
CM 1

CRN 67565-91-7
CMF C22 H21 P



CM 2

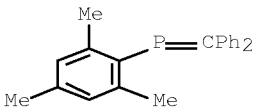
CRN 103-11-7
CMF C11 H20 O2



RN 713543-02-3 HCAPLUS
CN 2-Propenoic acid, butyl ester, polymer with (diphenylmethylene)(2,4,6-trimethylphenyl)phosphine (9CI) (CA INDEX NAME)

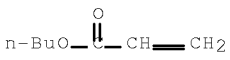
CM 1

CRN 67565-91-7
CMF C22 H21 P



CM 2

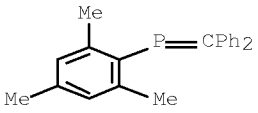
CRN 141-32-2
CMF C7 H12 O2



RN 713543-03-4 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)-, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

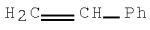
CM 1

CRN 67565-91-7
CMF C22 H21 P



CM 2

CRN 100-42-5
CMF C8 H8



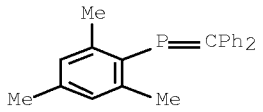
IC ICM C08G079-00
CC 35-4 (Chemistry of Synthetic High Polymers)
IT 67565-91-7P, Phosphine,
(diphenylmethylene)(2,4,6-trimethylphenyl)-
RL: IMF (Industrial manufacture); RCT (Reactant); PREP
(Preparation); RACT (Reactant or reagent)
(monomer or optionally intermediate for initiator preparation;
polymerization of phosphaalkenes)
IT 501418-46-8P, Phosphine,
(diphenylmethylene)(2,4,6-trimethylphenyl)-, homopolymer
RL: IMF (Industrial manufacture); RCT (Reactant); PREP
(Preparation); RACT (Reactant or reagent)
(optionally intermediate; polymerization of phosphaalkenes)
IT 7722-84-1DP, Hydrogen peroxide, reaction products with
polymethylenephosphine 10544-50-0DP, Octasulfur, reaction
products with polymethylenephosphine, preparation 14044-65-6DP,
Borane tetrahydrofuran, reaction products with
polymethylenephosphine 334992-56-2DP, Methanol, trifluoro-,
methanesulfonate, reaction products with polymethylenephosphine
501418-46-8DP, Phosphine,
(diphenylmethylene)(2,4,6-trimethylphenyl)-, homopolymer, modified
713542-93-9DP, oxidized 713542-95-1DP, oxidized
713542-97-3DP, oxidized 713542-99-5DP, oxidized
713543-00-1P 713543-01-2DP, oxidized
713543-02-3DP, oxidized 713543-03-4DP, oxidized
RL: IMF (Industrial manufacture); PREP (Preparation)
(polymerization of phosphaalkenes)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE
FOR THIS RECORD. ALL CITATIONS AVAILABLE
IN THE RE FORMAT

L39 ANSWER 2 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:594444 HCAPLUS Full-text
DOCUMENT NUMBER: 139:365235
TITLE: New functional inorganic polymers containing phosphorus
AUTHOR(S): Gates, Derek P.; Tsang, Chi-Wing; Wright, Vincent A.; Yam, Mandy
CORPORATE SOURCE: Department of Chemistry, University of British Columbia, Vancouver, BC, V6T 1Z1, Can.
SOURCE: Macromolecular Symposia (2003), 196(Metal- and Metalloid-Containing Macromolecules), 271-278
CODEN: MSYMEC; ISSN: 1022-1360
PUBLISHER: Wiley-VCH Verlag GmbH & Co. KGaA
DOCUMENT TYPE: Journal; General Review

LANGUAGE: English
ED Entered STN: 04 Aug 2003
AB A review describes the addition polymerization reaction as a general method for the polymerization of P=C bonds. The new macromol. is of moderate mol. weight (ca. 104 g/mol) and the oxidized polymers are air-stable. Poly(p-phenylenephosphaalkene), the first π-conjugated polymer containing P=C bonds in the backbone, has been prepared The UV/Vis spectrum of this polymer shows a red shift in λmax when compared with mol. model systems.
IT 501418-46-8D, derivs.
RL: MSC (Miscellaneous)
(new functional inorg. polymers containing phosphorus)
RN 501418-46-8 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)-, homopolymer (CA INDEX NAME)

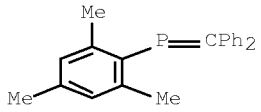
CM 1

CRN 67565-91-7
CMF C22 H21 P



CC 35-0 (Chemistry of Synthetic High Polymers)
IT 501418-46-8D, derivs.
RL: MSC (Miscellaneous)
(new functional inorg. polymers containing phosphorus)
REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

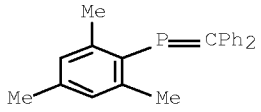
L39 ANSWER 3 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2003:45379 HCAPLUS Full-text
DOCUMENT NUMBER: 138:238494
TITLE: The Addition Polymerization of a P:C Bond: A Route to New Phosphine Polymers
AUTHOR(S): Tsang, Chi-Wing; Yam, Mandy; Gates, Derek P.
CORPORATE SOURCE: Department of Chemistry, University of British Columbia, Vancouver, BC, V6T 1Z1, Can.
SOURCE: Journal of the American Chemical Society (2003), 125(6), 1480-1481
CODEN: JACSAT; ISSN: 0002-7863
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 21 Jan 2003
AB Addition polymerization, the most general method of preparation for organic polymers, has successfully been extended to P:C bonds. The polymerization of a phospha-alkene was initiated by thermolysis or with alkyllithium reagents. The unprecedented poly(methylenephosphine)s are easily oxidized using oxygen or sulfur to give air stable macromols. A mol. weight (Mw) of 35000 g/mol for the poly(methylenephosphine sulfide) was estimated by light-scattering GPC.
IT 67565-91-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; new route to phosphine polymers by addition polymerization of a P:C bond)
RN 67565-91-7 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



IT 501418-46-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(new route to phosphine polymers by addition polymerization of a P:C bond)
RN 501418-46-8 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)-, homopolymer (CA INDEX NAME)

CM 1

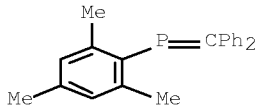
CRN 67565-91-7
CMF C22 H21 P



IT 501418-46-8DP, oxidized or reaction products with sulfur (S8)
RL: SPN (Synthetic preparation); PREP (Preparation)
(new route to phosphine polymers by addition polymerization of a P:C bond)
RN 501418-46-8 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)-, homopolymer (CA INDEX NAME)

CM 1

CRN 67565-91-7
CMF C22 H21 P



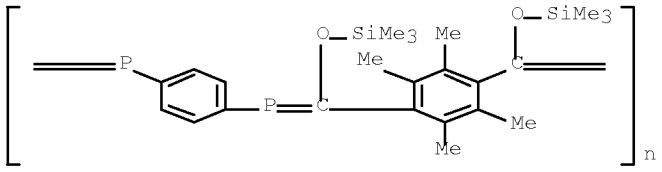
CC 35-4 (Chemistry of Synthetic High Polymers)
IT 67565-91-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(monomer; new route to phosphine polymers by addition polymerization of a P:C bond)
IT 501418-46-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(new route to phosphine polymers by addition polymerization of a P:C bond)

IT 10544-50-0DP, Sulfur (S8), reaction products with poly(methylenephosphine), preparation 501418-46-8DP, oxidized or reaction products with sulfur (S8)
RL: SPN (Synthetic preparation); PREP (Preparation)
(new route to phosphine polymers by addition polymerization of a P:C bond)

REFERENCE COUNT: 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 4 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 2002:548953 HCAPLUS Full-text
DOCUMENT NUMBER: 137:248057
TITLE: Poly(p-phenylenephosphaalkene): A π-conjugated macromolecule containing P=C bonds in the main chain
AUTHOR(S): Wright, Vincent A.; Gates, Derek P.
CORPORATE SOURCE: Department of Chemistry, University of British Columbia, Vancouver, BC, V6T 1Z1, Can.
SOURCE: Angewandte Chemie, International Edition (2002), 41(13), 2389-2392
CODEN: ACIEF5; ISSN: 1433-7851
PUBLISHER: Wiley-VCH Verlag GmbH
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 24 Jul 2002
AB An unprecedented yellow polymer with low-coordinate phosphorus atoms in the backbone was prepared from tetramethylterephthaloyl chloride and 1,4-phenylenebis[bis(trimethylsilyl)phosphine]. The material is soluble in polar organic solvents, and moderate mol. wts. (Mn = 2900-10,500 g mol-1) were estimated from 31P NMR spectroscopic end-group anal. The UV/visible spectra of the poly(p-phenylenephosphaalkene) in THF solution revealed a broad absorbance (λmax = 328-338 nm) and a tail stretching into the visible region. The bathochromic shift observed for the polymer compared with model compds. suggested some degree of π-conjugation through the phenylene and P=C units. The red shift was less than that for trans-poly(p-phenylenevinylene) compared with trans-stilbene (ca. 426 nm vs. 294/307 nm), which was attributed to conformational nonplanarity in the main chain caused by the bulky tetramethylphenylene groups in the polymer.
IT 460997-98-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(poly(p-phenylenephosphaalkene) π-conjugated polymer containing P=C bonds in main chain)
RN 460997-98-2 HCAPLUS
CN Poly[phosphinidyne-1,4-phenylenephosphinidyne[[(trimethylsilyl)oxy]methylidyne](2,3,5,6-tetramethyl-1,4-phenylene)[[(trimethylsilyl)oxy]methylidyne]] (9CI) (CA INDEX NAME)

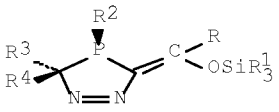


CC 35-5 (Chemistry of Synthetic High Polymers)
IT 460997-97-1P 460997-98-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP

(Preparation)
(poly(p-phenylenephosphaalkene) π-conjugated polymer containing P=C bonds in main chain)

REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L39 ANSWER 5 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1997:344444 HCAPLUS Full-text
DOCUMENT NUMBER: 127:81515
ORIGINAL REFERENCE NO.: 127:15633a,15636a
TITLE: Thermal reactions of 5-alkylidene-4,5-dihydro-3H-1,2,4(λ3)-diazaphospholes (4-phosphapyrazolines). A route to various P-heterocycles and to 2-phosphabutadienes
AUTHOR(S): Manz, Berthold; Bergstrasser, Uwe; Kerth, Jochen; Maas, Gerhard
CORPORATE SOURCE: Fachbereich Chemie, Universitat Kaiserslautern, Kaiserslautern, D-67663, Germany
SOURCE: Chemische Berichte/Recueil (1997), 130(6), 779-788
CODEN: CHBRFW
PUBLISHER: Wiley-VCH
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 127:81515
ED Entered STN: 31 May 1997
GI



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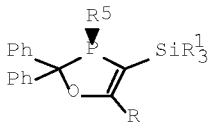
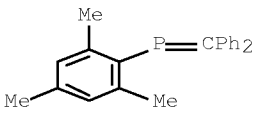


II

AB 5-Alkylidene-4,5-dihydro-3H-1,2,4(λ3)-diazaphospholes (4-phosphapyrazolines) are thermally much more stable than related compds. without the exocyclic double bond. Thermolysis typically occurs at 110-150° in toluene and different, mostly competing, reaction pathways are observed Thermal extrusion of N from phosphapyrazolines I [R = CHMe2; R1 = CMe3, 1-adamantyl, Me, 4-MeOC6H4, 4-O2NC6H4 or SiR3 = SiMe2CMe3 or SiMe2CMe3, R1 = CMe3 with R2 = mesityl, R3 = R4 = Ph] gives rise to β-phosphinyl siloxy alkenes, benzo[c]phospholes, (β-siloxyalkylidene)phosphiranes, and the appropriate dihydro-1,3-oxaphospholes II (R5 = mesityl). Thermolysis of I (R = CMe3, 1-adamantyl; R1 = CHMe2; R2 = SiMe3; R3 = CMe3; R4 = OSiMe3) afforded 3 products, including the corresponding highly substituted and stable phosphabutadienes (E,Z)-Me3SiO(Me3C)C:PC(SiMe3):CROSi(CHMe2)3 (III) formed by N extrusion and rearrangement. Finally, I (R = CMe3, R1 = CHMe2, R2 = Cl, R3 = CMe3, R4 = OSiMe3) was transformed at 170° into a 4H-1,2,4-diazaphosphole. The structures of II (R = CMe3, R1 = SiPh2CMe3, R5 = mesityl) and III (R = CMe3) were determined by single-crystal x-ray diffraction.

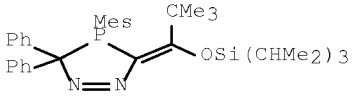
IT 67565-91-7, Mesityl(diphenylmethylene)phosphine
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of phosphorus heterocycles and phosphabutadienes by thermal rearrangement and decomposition of alkylidenedihydrodiazaphospholes)

RN 67565-91-7 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 75
IT 67565-91-7, Mesityl(diphenylmethylene)phosphine
106435-59-0, 1-Diazo-1-(triisopropylsilyl)-2-propanone
162931-67-1 162931-68-2 181256-80-4 181256-81-5
181256-87-1 181256-89-3 181256-91-7 181256-92-8
181256-97-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of phosphorus heterocycles and phosphabutadienes by thermal rearrangement and decomposition of alkylidenedihydrodiazaphospholes)

L39 ANSWER 6 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1996:457583 HCAPLUS Full-text
DOCUMENT NUMBER: 125:221959
ORIGINAL REFERENCE NO.: 125:41489a,41492a
TITLE: Synthesis of 5-alkylidene-4,5-dihydro-3H-1,2,4(λ3)-diazaphospholes from α-silyl-α-diazoketones and phosphaalkenes
AUTHOR(S): Manz, Berthold; Mass, Gerhard
CORPORATE SOURCE: Fachbereich Chemie, Univ. Kaiserlautern, Kaiserslautern, D-67663, Germany
SOURCE: Tetrahedron (1996), 52(30), 10053-10072
CODEN: TETRAB; ISSN: 0040-4020
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 125:221959
ED Entered STN: 02 Aug 1996
GI



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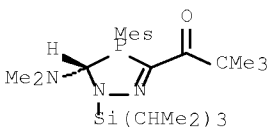
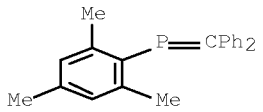


II

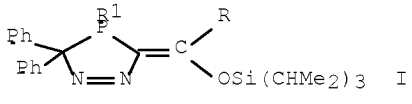
AB 5-Alkylidene-4,5-dihydro-3H-1,24(λ3)-diazaphospholes arise from [3+2] cycloaddn. reaction between various, differently substituted phosphaalkenes and 2-siloxy-1-diazoalkenes that are present to a minor extent in a thermal equilibrium with α-silyl-α-diazoketones. The cycloaddn. products, e.g. I, are sufficiently thermally stable to be isolated. In other cases, silyl group migration (ring C → N or O → N) leads to isomeric N-silyl-1,2,4-diazaphospholes. The crystal structures of I and II (Mes = mesityl) were determined
IT 67565-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(cycloaddn. reaction with silyldiazoketone)
RN 67565-91-7 HCAPLUS

CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)

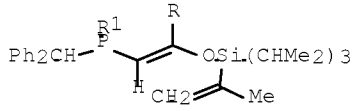


CC 29-7 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 75
IT 63853-15-6 67565-91-7 74483-17-3 78129-68-7
79908-16-0 81979-44-4 181256-96-2
RL: RCT (Reactant); RACT (Reactant or reagent)
(cycloaddn. reaction with silyldiazoketone)

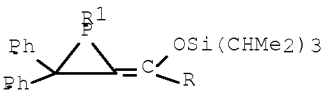
L39 ANSWER 7 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1995:334236 HCAPLUS Full-text
DOCUMENT NUMBER: 122:290959
ORIGINAL REFERENCE NO.: 122:53055a,53058a
TITLE: Synthesis of alkylidenephosphiranes by extrusion of nitrogen from 3-alkylidene-4,5-dihydro-3H-1,2,4-diazaphospholes
AUTHOR(S): Manz, Berthold; Maas, Gerhard
CORPORATE SOURCE: Fachbereich Chemie, Universitaet Kaiserslautern, Kaiserslautern, D-67663, Germany
SOURCE: Journal of the Chemical Society, Chemical Communications (1995), (1), 25-6
CODEN: JCCCAT; ISSN: 0022-4936
PUBLISHER: Royal Society of Chemistry
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 122:290959
ED Entered STN: 04 Feb 1995
GI



I



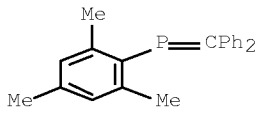
II



III

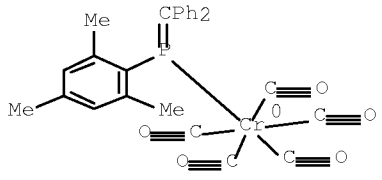
AB The 3-alkylidene-4,5-dihydro-3H-1,2,4-diazaphospholes I (R = Me3C, 1-adamantyl; R1 = mesityl), obtained from R1P:CPh2 and silyl diazo ketones RCOC(:N2)Si(CHMe2)3, undergo thermal extrusion of N to form alkenyl phosphines II and alkylidenephosphiranes III; the structures of these products were established by single crystal x-ray structure analyses.
IT 67565-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylidenedihydrodiazaphospholes from)
RN 67565-91-7 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX

NAME)

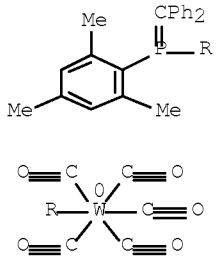


CC 29-7 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 75
IT 67565-91-7 106435-62-5 126419-13-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(alkylidenedihydrodiazaphospholes from)

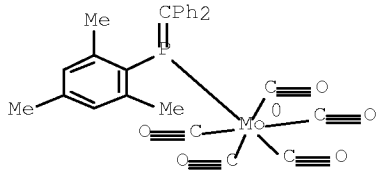
L39 ANSWER 8 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1987:423447 HCAPLUS Full-text
DOCUMENT NUMBER: 107:23447
ORIGINAL REFERENCE NO.: 107:3967a,3970a
TITLE: P-Coordinated Group VI metal(0) pentacarbonyl complexes of multiple-bond organophosphorus compounds in the low-coordination state
AUTHOR(S): Yoshifuji, Masaaki; Shibayama, Katsuhiro; Hashida, Takashi; Toyota, Kozo; Niitsu, Takashi; Matsuda, Ikumi; Sato, Takahiro; Inamoto, Naoki
CORPORATE SOURCE: Fac. Sci., Univ. Tokyo, Tokyo, 113, Japan
SOURCE: Journal of Organometallic Chemistry (1986), 311(3), C63-C67
CODEN: JORCAI; ISSN: 0022-328X
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 25 Jul 1987
AB The 31P NMR of Group VI metal(0) carbonyl complexes of diphosphenes, phosphaethylenes, 1-phosphaallene, and 1,3-diphosphaallene with the P atom in the low coordination state were determined The 31P chemical shifts of these complexes correlate to one another: the structures in solution could be determined by taking into account the correlation and P-W coupling consts. in 31P NMR.
IT 78506-28-2 78777-19-2 108786-72-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(phosphorus-31 NMR spectral characteristics of)
RN 78506-28-2 HCAPLUS
CN Chromium, pentacarbonyl[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]-, (OC-6-22)- (CA INDEX NAME)



RN 78777-19-2 HCAPLUS
CN Tungsten, pentacarbonyl[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]-, (OC-6-22)- (CA INDEX NAME)



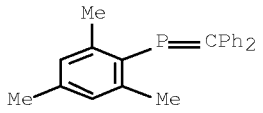
RN 108786-72-7 HCAPLUS
CN Molybdenum, pentacarbonyl[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]-, (OC-6-22)- (CA INDEX NAME)



CC 29-11 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 22
IT 78506-28-2 78777-19-2 90599-67-0 99279-48-8
99279-52-4 99279-53-5 99331-06-3 99395-83-2 108771-14-8
108786-67-0 108786-68-1 108786-69-2 108786-70-5
108786-71-6 108786-72-7 108786-73-8 108786-74-9
108786-75-0 108865-29-8 108865-30-1 108865-31-2
108865-32-3 108865-33-4 108865-34-5 108865-35-6
108865-36-7 108865-37-8 108866-78-0 108866-79-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(phosphorus-31 NMR spectral characteristics of)

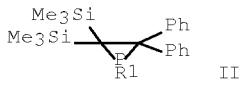
L39 ANSWER 9 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1987:59303 HCAPLUS Full-text
DOCUMENT NUMBER: 106:59303
ORIGINAL REFERENCE NO.: 106:9659a,9662a
TITLE: Acyl- and alkylidenephosphines. XXIX. Molecular and crystal structure of orthorhombic (diphenylmethylidene)mesitylphosphine
AUTHOR(S): Mundt, O.; Becker, G.; Uhl, W.; Massa, W.; Birkhahn, M.
CORPORATE SOURCE: Inst. Anorg. Chem., Univ. Stuttgart, Stuttgart, D-7000/80, Fed. Rep. Ger.
SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (1986), 540-541, 319-35
CODEN: ZAACAB; ISSN: 0044-2313
DOCUMENT TYPE: Journal
LANGUAGE: German
ED Entered STN: 21 Feb 1987
AB The title compound at -125 ±3° is orthorhombic, space group Pbca, with a 951.2(7), b 2115.8(9), and c 1737.0(18) pm; Z = 8. Atomic coordinates are given. Bond lengths and angles (P:C 169.3(2), P-C 183.3(2) pm, C-P:C 107.6(2)°, P:C-C 124.8(2)° and 118.0(2)°) are in almost exact conformity with those obtained from a monoclinic polymorph. With respect to mol. conformation, however, the title compound resembles the homologous (diphenylmethylidene)mesitylamine.
IT 67565-91-7, (Diphenylmethylidene)mesitylphosphine

RL: PRP (Properties)
(crystal structure of orthorhombic)
RN 67565-91-7 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



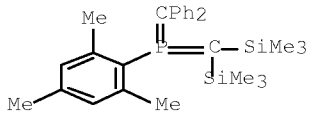
CC 75-8 (Crystallography and Liquid Crystals)
Section cross-reference(s): 29
IT 67565-91-7, (Diphenylmethylidene)mesitylphosphine
RL: PRP (Properties)
(crystal structure of orthorhombic)

L39 ANSWER 10 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1986:460681 HCAPLUS Full-text
DOCUMENT NUMBER: 105:60681
ORIGINAL REFERENCE NO.: 105:9927a,9930a
TITLE: Low-coordinated phosphorus compounds. 45. Mixed substituted bismethylenephosphoranes by the reaction of carbenoids with phosphaalkenes
AUTHOR(S): Appel, Rolf; Gaitzsch, Thomas; Knoch, Falk; Lenz, Gerhard
CORPORATE SOURCE: Anorg.-Chem. Inst., Univ. Bonn, Bonn, D-5300/1, Fed. Rep. Ger.
SOURCE: Chemische Berichte (1986), 119(6), 1977-85
CODEN: CHBEAM; ISSN: 0009-2940
DOCUMENT TYPE: Journal
LANGUAGE: German
OTHER SOURCE(S): CASREACT 105:60681
ED Entered STN: 23 Aug 1986
GI

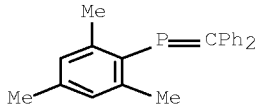


II

AB The reaction of R1P:CR2R3 (R1 = Me3C, Ph, mesityl; R2, R3 = Ph, Me3Si) with R2C(Li)Cl (R = Ph, Me3Si) gave 7 R1P(:CR2):CR2R3 (I). I rearranged to give 77-89% phosphiranes II (R = Ph, Me3C). The crystal structures of 2,4,6-Me3C6H2P(:CPh2):C(SiMe3)2 and II (R1 = Ph) were determined
IT 100993-28-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectra of)
RN 100993-28-0 HCAPLUS
CN Phosphine, [bis(trimethylsilyl)methylene](diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



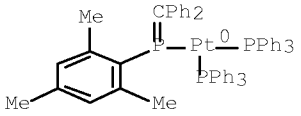
IT 67565-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with carbenoids, bismethylenephosphoranes from)
RN 67565-91-7 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 75
IT 56431-99-3P 80359-67-7P 96041-40-6P 100938-89-4P
100938-90-7P 100938-91-8P 100993-28-0P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectra of)
IT 67565-91-7 78928-40-2 78928-41-3 81979-44-4
89982-70-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with carbenoids, bismethylenephosphoranes from)

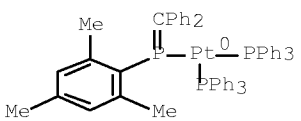
L39 ANSWER 11 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1985:166931 HCAPLUS Full-text
DOCUMENT NUMBER: 102:166931
ORIGINAL REFERENCE NO.: 102:26253a,26256a
TITLE: The η1- and η2-coordination in phosphaalkeneplatinum(0) complexes. High resolution solid state phosphorus-3] NMR spectrum of mesityl(diphenylmethylene)phosphinebis(triphenylphosphine)platinum(0)
AUTHOR(S): Kroto, Harold W.; Klein, Stanlei I.; Meidine, Mohamed F.; Nixon, John F.; Harris, Robin K.; Packer, Kenneth J.; Reams, Patrick
CORPORATE SOURCE: Sch. Chem. Mol. Sci., Univ. Sussex, Brighton, BN1 9QJ, UK
SOURCE: Journal of Organometallic Chemistry (1985), 280(2), 281-7
CODEN: JORCAI; ISSN: 0022-328X
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 18 May 1985
AB The high resolution solid state 31P NMR spectrum of Pt(PPh3)2(PR:CPh2) (R = mesityl) shows the expected features for an η1-coordinated phosphaalkene ligand and is completely different from that of the η2-complex with exists in solution
IT 80737-43-5
RL: PRP (Properties)
(phosphorus-31 NMR spectrum of, solid state, coordination in)
RN 80737-43-5 HCAPLUS
CN Platinum, [(diphenylmethylene)(2,4,6-

trimethylphenyl)phosphine]bis(triphenylphosphine)- (CA INDEX NAME)



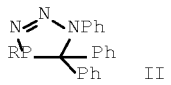
CC 29-13 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 22
IT 80737-43-5
RL: PRP (Properties)
(phosphorus-31 NMR spectrum of, solid state, coordination in)

L39 ANSWER 12 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1984:630744 HCAPLUS Full-text
DOCUMENT NUMBER: 101:230744
ORIGINAL REFERENCE NO.: 101:35045a,35048a
TITLE: The η1- and η2-coordination in a (phosphaalkene)platinum(0) complex
AUTHOR(S): Van der Knaap, Theodorus A.; Bickelhaupt, Friedrich; Kraaykamp, Johanna G.; Van Koten, Gerard; Bernards, Jan P. C.; Edzes, Hommo T.; Veeman, Wiebren S.; De Boer, Engbert; Baerends, Evert J.
CORPORATE SOURCE: Scheikd. Lab., Vrije Univ., Amsterdam, Neth.
SOURCE: Organometallics (1984), 3(12), 1804-11
CODEN: ORGND7; ISSN: 0276-7333
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 22 Dec 1984
AB The complex (Ph2C:PR)Pt(PPh3)2 (R = mesityl), prepared from (H2:CH2)Pt(PPh3)2 and Ph2C:PR, can coordinate the Ph2C:PR ligand in either the η1-mode (I) or the η2-mode (II). Solid-state 31P NMR spectroscopy confirmed the known η1-mode in the crystalline state. Temperature-dependent 31P and 195PT NMR spectra in toluene-d8 showed that the equilibrium I .dblharw. II was established in solution This is the 1st case of a directly observable equilibrium between the 2 coordination modes. Hartree-Fock-Slater (LCAO-Xaα) calcns. on the model system (PH3)2Pt·HP:CH2 showed that the η2-coordination corresponded to the Dewar-Chatt-Duncanson model and was energetically favored over the η1-coordination due to the stronger π-back-donation even though the σ-donation was weaker. The differences are not large and may be overruled by nonbonded interactions when larger ligands are involved. Nevertheless, the exptl. evidence proved that the calculated order η2 > η1 holds for the rather bulky ligand Ph2C:PR.
IT 80737-43-5P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and coordination of, equilibrium in)
RN 80737-43-5 HCAPLUS
CN Platinum, [(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]bis(triphenylphosphine)- (CA INDEX NAME)



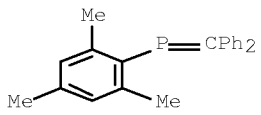
CC 29-13 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 22
IT 80737-43-5P 89934-21-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and coordination of, equilibrium in)

L39 ANSWER 13 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1984:455208 HCAPLUS Full-text
DOCUMENT NUMBER: 101:55208
ORIGINAL REFERENCE NO.: 101:8581a,8584a
TITLE: [4 + 2] cycloaddition reactions of triarylphosphaalkenes
AUTHOR(S): Van der Knaap, Theodorus A.; Klebach, Theodorus C.; Visser, Foppe; Lourens, Rimmer; Bickelhaupt, Friedrich
CORPORATE SOURCE: Vakgroep Org. Chem., Vrije Univ., Amsterdam, 1081 HV, Neth.
SOURCE: Tetrahedron (1984), 40(6), 991-7
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 101:55208
ED Entered STN: 18 Aug 1984
GI



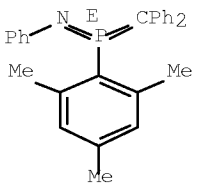
II

AB Cycloaddn. reactions of mesityl(diphenylmethylene)phosphine (I) were investigated. With several dienes, no Diels-Alder reactions were observed With azides, diphenyldiazomethane and 2,4,6-trimethylbenzonitrile oxide, the corresponding cycloadducts were obtained. Thus, I and PhN3 gave the cycloadduct II (R = mesityl); RP(:CPh2):NPh was also formed from a competing Staudinger reaction.
IT 67565-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(cycloaddn. reactions of)
RN 67565-91-7 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)

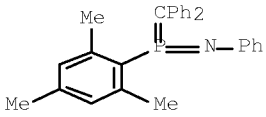


IT 91075-79-5P 91075-80-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 91075-79-5 HCAPLUS
CN Benzenamine, N-[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphoranylidene]-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 91075-80-8 HCAPLUS
CN Benzenamine, N-[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphoranylidene]-, (Z)- (9CI) (CA INDEX NAME)

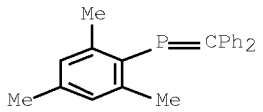


CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 67565-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(cycloaddn. reactions of)
IT 25034-65-5P 25568-84-7P 91075-79-5P
91075-80-8P 91075-81-9P 91075-82-0P 91075-83-1P
91075-84-2P 91075-85-3P 91075-86-4P 91075-87-5P
91108-21-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

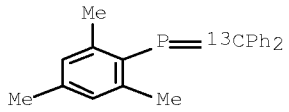
L39 ANSWER 14 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1984:438554 HCAPLUS Full-text
DOCUMENT NUMBER: 101:38554
ORIGINAL REFERENCE NO.: 101:6033a,6036a
TITLE: Synthesis and structure of aryl-substituted phosphaalkenes
AUTHOR(S): Van der Knaap, T. A.; Klebach, T. C.; Visser, F.; Bickelhaupt, F.; Ros, P.; Baerends, E. J.; Stam, C. H.; Konijn, M.
CORPORATE SOURCE: Vakgroep Org. Chem., Vrije Univ., Amsterdam, 1081 HV, Neth.
SOURCE: Tetrahedron (1984), 40(4), 765-76
CODEN: TETRAB; ISSN: 0040-4020
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 101:38554
ED Entered STN: 04 Aug 1984
AB The preferred route for preparing RP:CPh2 (I; R = 2,4,6-Me3C6H2, 2,6-Me2C6H3) started from RBr, which were treated with Mg and ClP(NEt2)2 to give RP(NEt2)2. Chlorination of the last gave RPClNEt2, which were alkylated to form RPClCHPh2 (II). Dehydrochlorination of II gave I in 60-85% yield. I have essentially localized P:C bonds and are sterically stabilized. These conclusions were confirmed by HFS-calcns. on model compds. X:CH2 (X = NH, PH, PPh), (E)-HP:CHPh, and (E)-HP:CHNMe2 (III) which identified the P lone pair as HOMO and the π-orbital as NHOMO; however, both orbitals are close in energy. Furthermore, the calcns. revealed the importance of phosphorus d-orbitals in bonding, and the polarization in the P:C bond (P as pos. pole), which had earlier been derived from chemical evidence. Finally, interaction of the P:C bond with P groups did not influence the bonding situation, but substitution by a heteroatom, in III, did. The crystal structure of I (R = 2,4,6-Me3C6H2) showed a short P:C bond length

and a R-P-C bond angle smaller than expected for purely sp2-hybridized atoms, but larger than that in the unsubstituted parent compound HP:CH2.

IT 67565-91-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)
RN 67565-91-7 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



IT 90929-04-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 90929-04-7 HCAPLUS
CN Phosphine, (diphenylmethylene-13C)(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)



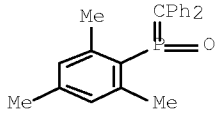
CC 29-7 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 22, 75
IT 67565-91-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)
IT 85320-16-7P 85320-25-8P 90929-00-3P 90929-01-4P
90929-02-5P 90929-04-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L39 ANSWER 15 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1984:191971 HCAPLUS Full-text
DOCUMENT NUMBER: 100:191971
ORIGINAL REFERENCE NO.: 100:29191a,29194a
TITLE: Reactivity of phosphaalkenes
AUTHOR(S): Van der Knaap, Theodorus A.; Bickelhaupt, Friedrich
CORPORATE SOURCE: Vakgroep Org. Chem., Vrije Univ., Amsterdam, Neth.
SOURCE: Phosphorus and Sulfur and the Related Elements (1983), 18(1-2-3), 47-50
CODEN: PREEDF; ISSN: 0308-664X
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 08 Jun 1984
AB The reactions of RP:CPh2 (R = 2,4,6-Me3C6H2; 2,6-Me2C6H3) with oxidants O2, S8, Se, Te, H2O2, with o-quinones, and with Pt(0)- and Ni(0)-complexes were described.
IT 89982-79-6P 89982-81-0P 89982-83-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and reaction of, with ethanol)

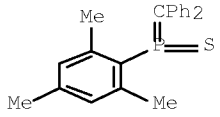
RN 89982-79-6 HCAPLUS

CN Phosphine oxide, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



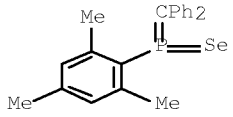
RN 89982-81-0 HCAPLUS

CN Phosphine sulfide, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



RN 89982-83-2 HCAPLUS

CN Phosphine selenide, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



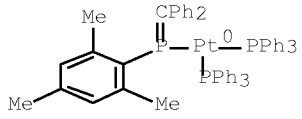
IT 80737-43-5P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and structure of)

RN 80737-43-5 HCAPLUS

CN Platinum, [(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]bis(triphenylphosphine)- (CA INDEX NAME)



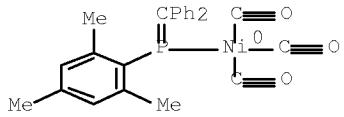
IT 89001-33-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

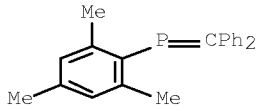
(preparation of)

RN 89001-33-2 HCAPLUS

CN Nickel, tricarbonyl[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]-, (T-4)- (CA INDEX NAME)

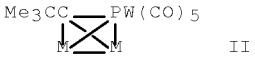


IT 67565-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactions of)
RN 67565-91-7 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 85830-26-8P 89982-79-6P 89982-81-0P
89982-82-1P 89982-83-2P 89982-87-6P 89982-88-7P
89982-89-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reaction of, with ethanol)
IT 80737-43-5P 89934-21-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and structure of)
IT 6782-00-9P 85320-17-8P 85320-18-9P 85320-19-0P 85354-76-3P
85814-50-2P 89001-33-2P 89183-92-6P 89291-02-1P
89291-07-6P 89291-08-7P 89291-12-3P 89934-20-3P
89982-84-3P 89982-85-4P 89982-86-5P 89982-90-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 67565-91-7 85320-16-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactions of)

L39 ANSWER 16 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1984:175046 HCAPLUS Full-text
DOCUMENT NUMBER: 100:175046
ORIGINAL REFERENCE NO.: 100:26633a,26636a
TITLE: Syntheses, structures, and photoelectron spectra of phosphaalkenes and phosphaalkynes and their transition metal complexes
AUTHOR(S): Burckett-St. Laurent, J. C. T. R.; Hitchcock, P. B.; King, M. A.; Kroto, H. W.; Meidine, M. F.; Klein, S. I.; Al-Resayes, S. I.; Suffolk, R. J.; Nixon, J. F.
CORPORATE SOURCE: Sch. Chem. Mol. Sci., Univ. Sussex, Brighton/Sussex, BN1 9QJ, UK
SOURCE: Phosphorus and Sulfur and the Related Elements (1983), 18(1-2-3), 259-62
CODEN: PREEDF; ISSN: 0308-664X
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 26 May 1984
GI



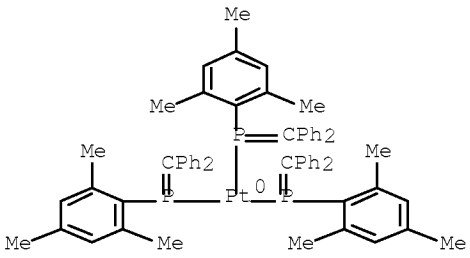
II

AB Me3CC.tplbond.P reacted with Co2(CO)8 to give Co2(CO)6(P.tplbond.CCMe3), which reacted with W(Co)5(THF)(I) to give the cluster compound II [M = Co(CO)3]. Similarly, Me3CC.tplbond.P reacted with Cp(CO)2Mo.tplbond.Mo(CO)2Cp (Cp = cyclopentadienyl) and I to give II [M = Mo(CO)2Cp]. Treating PtL2 (L = cyclooctadiene) with RP:CPh2 (R = mesityl) gave (η1(PR:CPh2)3Pt. PtL2 reacted with RP:CPh2 and Me3CC.tplbond.P to form (η1-PR:CPh2)2(η2- Me3CC.tplbond.P)Pt.

IT 89041-27-0P 89041-28-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

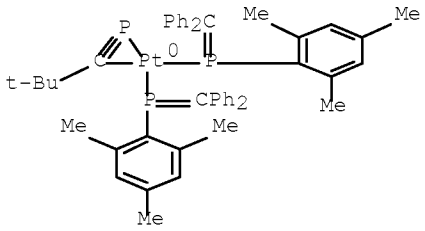
RN 89041-27-0 HCAPLUS

CN Platinum, tris[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]- (CA INDEX NAME)



RN 89041-28-1 HCAPLUS

CN Platinum, [η2-(2,2-dimethylpropylidyne)phosphine]bis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]- (9CI) (CA INDEX NAME)



CC 29-13 (Organometallic and Organometalloidal Compounds)

IT 84685-75-6P 84698-60-2P 89041-27-0P
89041-28-1P 89869-53-4P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L39 ANSWER 17 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1984:121313 HCAPLUS Full-text
DOCUMENT NUMBER: 100:121313
ORIGINAL REFERENCE NO.: 100:18469a,18472a

TITLE: Complex formation between nickel(0) and a phosphaalkene: influence of the second ligand on the η1- and η2-coordination mode

AUTHOR(S): Van der Knaap, Theodorus A.; Jenneskens, Leo W.; Meeuwissen, Hendrik J.; Bickelhaupt, Friedrich; Walther, Dirk; Dinjus, Eckard; Uhlig, Egon; Spek, Anthony L.

CORPORATE SOURCE: Vakgroep Org. Chem., Vrije Univ., Amsterdam, 1081 HV, Neth.

SOURCE: Journal of Organometallic Chemistry (1983), 254(3), C33-C36
CODEN: JORCAI; ISSN: 0022-328X

DOCUMENT TYPE: Journal

LANGUAGE: English

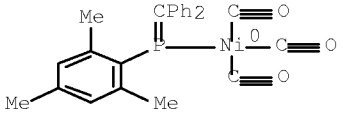
ED Entered STN: 12 May 1984

AB Treating LNiL1 (L = 2,2'-bipyridine; L1-1,5-cyclooctadiene) with Ph2C:PC6H3Me2-2,6 gave μ2-(Ph2C:PC6H4Me2-2,6)NiL, which was characterized by x-ray anal. In contrast, treating Ni(CO)4 with Ph2C:PR (R = C6H2Me3-2,4,6) gave (CO)3Ni(η1-PR:CPh2), which gave (CO)2Ni(PR:CPh2)2 by CO loss.

IT 89001-33-2P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and carbon monoxide loss of)

RN 89001-33-2 HCAPLUS

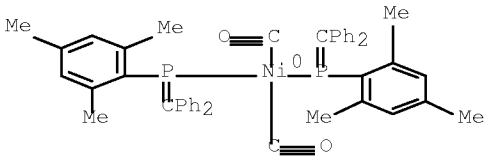
CN Nickel, tricarbonyl[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]-, (T-4)- (CA INDEX NAME)



IT 88994-64-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 88994-64-3 HCAPLUS

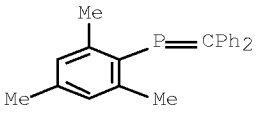
CN Nickel, dicarbonylbis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]-, (T-4)- (CA INDEX NAME)



IT 67565-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nickel tetracarbonyl)

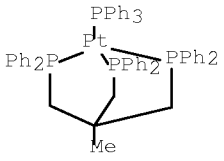
RN 67565-91-7 HCAPLUS

CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)

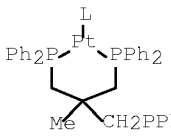


CC 29-13 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 75
IT 89001-33-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and carbon monoxide loss of)
IT 88994-64-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
IT 67565-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with nickel tetracarbonyl)

L39 ANSWER 18 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1984:103587 HCAPLUS Full-text
DOCUMENT NUMBER: 100:103587
ORIGINAL REFERENCE NO.: 100:15749a,15752a
TITLE: Synthesis of η1- and η2-phosphaalkene-transition metal complexes and the first examples of complexes containing only ligated phospha alkenes and phospha alkynes
AUTHOR(S): Al-Resayes, Saud I.; Klein, Stanlei I.; Kroto, Harold W.; Meidine, Mohamed F.; Nixon, John F.
CORPORATE SOURCE: Sch. Chem. Mol. Sci., Univ. Sussex, Brighton, BN1 9QJ, UK
SOURCE: Journal of the Chemical Society, Chemical Communications (1983), (17), 930-2
CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
GI

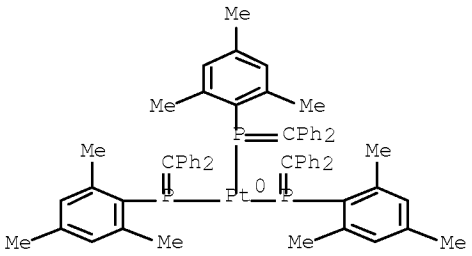


I

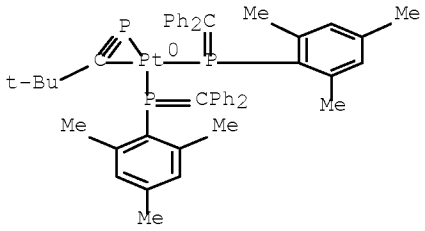


II

AB Displacement reactions of the Pt complex I unexpectedly gave the η2-complexes II (L = η2-Ph2C:PC6H2Me3-2,4,6, η2-Me3CC.tplbond.P). However, treatment of Pt(COD)2 (III; COD = 1,5-cyclooctadiene) with Ph2C:PC6H2Me3-2,4,6 (L1) gave η1-P+L13. Similarly, treatment of III with a 2:1 mixture of L1 and P.tplbond.CCMe3 (L2) gave (η1-L1)2Pt(η2-L2).
IT 89041-27-0P 89041-28-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 89041-27-0 HCAPLUS
CN Platinum, tris[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]- (CA INDEX NAME)



RN 89041-28-1 HCAPLUS
CN Platinum, [η2-(2,2-dimethylpropylidyne)phosphine]bis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]- (9CI) (CA INDEX NAME)



CC 29-13 (Organometallic and Organometalloidal Compounds)
IT 89041-26-9P 89041-27-0P 89041-28-1P
89063-20-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

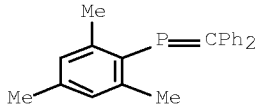
L39 ANSWER 19 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1983:405700 HCAPLUS Full-text
DOCUMENT NUMBER: 99:5700
ORIGINAL REFERENCE NO.: 99:1041a,1044a
TITLE: Oxidation reactions of phosphaalkenes
AUTHOR(S): Van der Knaap, T. A.; Klebach, T. C.; Lourens, R.; Vos, M.; Bickelhaupt, F.
CORPORATE SOURCE: Vakgroep Organ. Chem., Vrije Univ., Amsterdam, 1081 HV, Neth.
SOURCE: Journal of the American Chemical Society (1983), 105(12), 4026-32
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 99:5700
ED Entered STN: 12 May 1984
AB Phosphaalkenes such as 2,4,6-Me3C6H2P:CPh2 (I) and 2,6-Me2C6H3P:CPh2 (II) are quite reactive in many respects but are rather sluggish in their reaction with and O and S. Primary intermediates in the reactions of II are its oxide, 2,6-Me2C6H3P(O):CPh2 (III) [or the S analog 2,6-Me2C6H3P(S):CPh2, resp.), and the phosphinidene oxide 2,6-Me2C6H3P(O): (IV) [or its S analog 2,6-Me2C6H3P(S):], which together with (thio)benzophenone is formed by oxidative cleavage of the P:C bond. The occurrence of these unstable intermediates is concluded from their interception by ethanol [yielding 2,6-Me2C6H3P(O)(OEt)CHPh2 (V) and IV] or water [yielding 2,6-Me2C6H3P(O)(OH)CHPh2 (VI) and 2,6-Me2C6H3P(O)(OH)H] in the O reactions and by ethanol [yielding 2,6-

Me2C6H3P(S)(OEt)CHPh2 and 2,6-Me2C6H3P(S)(OEt)H] in the S reaction. With O, III reacts in part further under cleavage of the P:C bond and formation of benzophenone and the phosphinidene dioxide 2,6-Me2C6H3PO2 which is intercepted by ethanol [yielding 2,6-Me2C6H3P(O)(OEt)(OH)] or water [yielding 2,6-Me2C6H3P(O)(OH)2]. These interception reactions are feasible because I and II are unreactive towards water and alc. in the absence of acid or base catalysis. Treatment of II with H2O2 in ethanol proceeds also largely via III; it leads to V, VI, and 2,6-Me2C6H3P(O)(CHPh2)H; in this case, cleavage of the P:C bond is not observed The mechanism of these reactions and the competition between various reactants (e.g., between O, H2O, EtOH) are discussed. The structure of the reaction products is determined from their spectral properties and by alternative synthesis along unequivocal routes.

IT 67565-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of)

RN 67565-91-7 HCAPLUS

CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)

IT 67565-91-7 85320-16-7 85320-24-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(oxidation of)

L39 ANSWER 20 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1982:582527 HCAPLUS Full-text

DOCUMENT NUMBER: 97:182527

ORIGINAL REFERENCE NO.: 97:30545a,30548a

TITLE: A nucleophilic reaction of a phosphaalkene: the methylation of mesityldiphenylmethylenephosphine

AUTHOR(S): Van der Knaap, T. A.; Bickelhaupt, F.

CORPORATE SOURCE: Vakgroep Org. Chem., Vrije Univ. De Boelelaan, Amsterdam, 1081 HV, Neth.

SOURCE: Tetrahedron Letters (1982), 23(19), 2037-40
CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

LANGUAGE: English

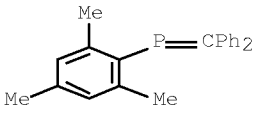
ED Entered STN: 12 May 1984

AB Methylation of 2,4,6-Me3C6H2P:CPh2 (I) with MeI in a sealed vessel at 50° for 24 h in the dark gave 80% 2,4,6-Me3C6H2PIMe:CPh2 (II) and 1-5% 2,4,6-Me3C6H2P+Me2CHPh2 I- (III). The reaction mechanism involves nucleophilic attack of the P atom of I on MeI to form the reactive intermediate 2,4,6-Me3C6H2P+Me:CPh2 I-, which gave II on addition of I- whereas addition of MeI followed by elimination gave III. The regioselectivity of the addition reactions of I is discussed.

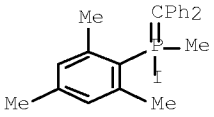
IT 67565-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(methylation of, mechanism of)

RN 67565-91-7 HCAPLUS

CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



IT 83438-74-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and nucleophilic addition reactions of)
RN 83438-74-8 HCAPLUS
CN Phosphorane, (diphenylmethylene)iodomethyl(2,4,6-trimethylphenyl)- (9CI) (CA INDEX NAME)

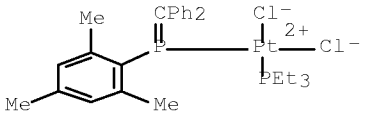


CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 67865-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(methylation of, mechanism of)
IT 83438-74-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and nucleophilic addition reactions of)

L39 ANSWER 21 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1982:448559 HCAPLUS Full-text
DOCUMENT NUMBER: 97:48559
ORIGINAL REFERENCE NO.: 97:8031a,8034a
TITLE: Synthesis and phosphorus-31 NMR spectra of some platinum(II) complexes of the phospha-alkene, (mesityl)P=CPh2. Crystal and molecular structure of cis-[PtCl2(PEt3)(C6H2Me3P=CPh2)]·CHCl3
AUTHOR(S): Kroto, Harold W.; Nixon, John F.; Taylor, Michael J.; Frew, Aileen A.; Muir, Kenneth W.
CORPORATE SOURCE: Sch. Chem. Mol. Sci., Univ. Sussex, Brighton, BN1 9QJ, UK
SOURCE: Polyhedron (1982), 1(1), 89-95
CODEN: PLYHDE; ISSN: 0277-5387
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Syntheses of the phospha-alkene complexes cis- and trans-[PtCl2(PEt3)L] (L = 2,4,6-Me3C6H2P:CPh2) and cis-[PtX2L2] (X = Cl, I, Me) complexes are reported. 31P NMR spectra indicate that bonding of the phospha-alkene to th metal is via the P lone pair and this is confirmed by a single crystal x-ray diffraction study of cis-[PtCl2(PEt3)L].CHCl3.
IT 82383-13-9
RL: PRP (Properties)
(crystal and mol structure of)
RN 82383-13-9 HCAPLUS
CN Platinum, dichloro[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine](triethylphosphine)-, (SP-4-3)-, compd. with trichloromethane (1:1) (9CI) (CA INDEX NAME)

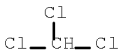
CM 1

CRN 78777-26-1
CMF C28 H36 Cl2 P2 Pt
CCI CCS

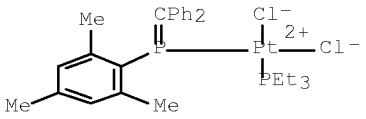


CM 2

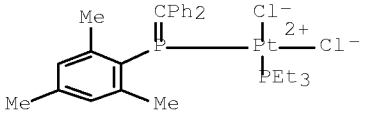
CRN 67-66-3
CMF C H Cl3



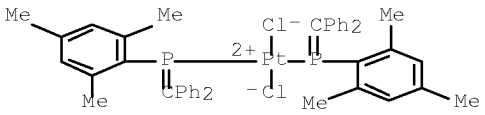
IT 78777-26-1P 78822-10-3P 82335-44-2P
82335-45-3P 82335-46-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and NMR of)
RN 78777-26-1 HCAPLUS
CN Platinum, dichloro[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine](triethylphosphine)-, (SP-4-3)- (CA INDEX NAME)



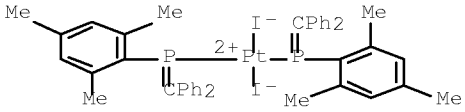
RN 78822-10-3 HCAPLUS
CN Platinum, dichloro[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine](triethylphosphine)-, (SP-4-1)- (CA INDEX NAME)



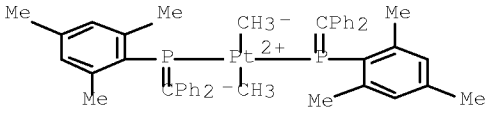
RN 82335-44-2 HCAPLUS
CN Platinum, dichlorobis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]-, (SP-4-2)- (CA INDEX NAME)



RN 82335-45-3 HCAPLUS
CN Platinum, bis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]diiodo-, (SP-4-2)- (CA INDEX NAME)



RN 82335-46-4 HCAPLUS
CN Platinum, bis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]dimethyl-, (SP-4-2)- (CA INDEX NAME)



CC 78-7 (Inorganic Chemicals and Reactions)
Section cross-reference(s): 75, 77
IT 82285-08-3 82383-13-9
RL: PRP (Properties)
(crystal and mol structure of)
IT 78777-21-6P 78777-26-1P 78789-42-1P
78822-10-3P 82335-44-2P 82335-45-3P
82335-46-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and NMR of)

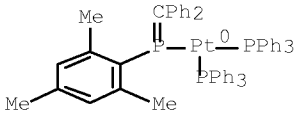
L39 ANSWER 22 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1982:122995 HCAPLUS Full-text
DOCUMENT NUMBER: 96:122995
ORIGINAL REFERENCE NO.: 96:20205a,20208a
TITLE: Synthesis and structural investigation of [mesityl(diphenylmethylene)phosphine]bis(triphenylphosphine)platinum(0)
AUTHOR(S): Van der Knaap, T. A.; Bickelhaupt, F.; Van der Poel, H.; Van Koten, G.; Stam, C. H.
CORPORATE SOURCE: Vakgroep Org. Chem., Vrije Univ., Amsterdam, 1081 HV, Neth.
SOURCE: Journal of the American Chemical Society (1982), 104(6), 1756-7
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Reaction of (C2H4)Pt(PPh3)2 with RP:CPh2 (I; R = mesityl) in PhMe gave the dark-red complex (RP:CPh2)Pt(PPh3)2 (II). X-ray crystal structure determination showed that Pt

is tricoordinate in II, with the ligand I σ-coordinated via P; η2-coordination via the P:C π bond does not occur. However, in solution the 31P NMR data point either to η2-coordination or to rather unusual bonding interactions between Pt and P in the σ-coordination mode.

IT 80737-43-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, crystal and mol. structure, and phosphorus-31 NMR spectrum of, bonding in relation to)

RN 80737-43-5 HCAPLUS

CN Platinum, [(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]bis(triphenylphosphine)- (CA INDEX NAME)



CC 29-13 (Organometallic and Organometalloidal Compounds)

IT 80737-43-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, crystal and mol. structure, and phosphorus-31 NMR spectrum of, bonding in relation to)

L39 ANSWER 23 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN

ACCESSION NUMBER: 1982:122872 HCAPLUS Full-text

DOCUMENT NUMBER: 96:122872

ORIGINAL REFERENCE NO.: 96:20181a,20184a

TITLE: Acyl- and alkylidenephosphines. XVI. (Dimethylaminomethylidene)- and (diphenylmethylidene)phosphines

AUTHOR(S): Becker, G.; Uhl, W.; Wessely, H. J.

CORPORATE SOURCE: Fachber. Chem., Philipps-Univ., Marburg, Fed. Rep. Ger.

SOURCE: Zeitschrift fuer Anorganische und Allgemeine Chemie (1981), 479, 41-56
CODEN: ZAACAB; ISSN: 0044-2313

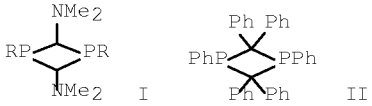
DOCUMENT TYPE: Journal

LANGUAGE: German

OTHER SOURCE(S): CASREACT 96:122872

ED Entered STN: 12 May 1984

GI



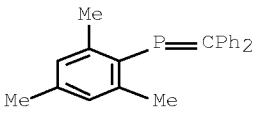
AB RP(SiMe3)2 (R = 2,4,6-Me3C6H2, CMe3, Ph, Me) reacted with DMF or Ph2CO with solid NaOH catalyst to give RP:CHNMe2 or RP:CPh2, resp. The same products were obtained from RPLiSiMe3. RP:CHNMe2 (R = Me, Ph) dimerized to I and PhP:CPh2 to II.

IT 67565-91-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 67565-91-7 HCAPLUS

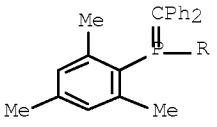
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX

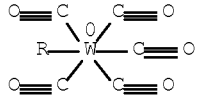
NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 67565-91-7P 79908-16-0P 79908-18-2P 79908-19-3P
79908-21-7P 79908-22-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

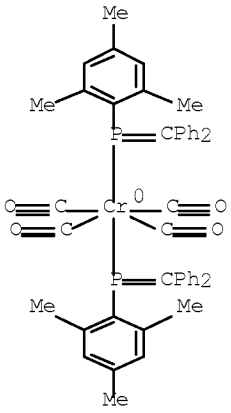
L39 ANSWER 24 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1981:497907 HCAPLUS Full-text
DOCUMENT NUMBER: 95:97907
ORIGINAL REFERENCE NO.: 95:16459a,16462a
TITLE: Synthesis of phosphaalkene transition metal complexes
AUTHOR(S): Eshtiagh-Hosseini, H.; Kroto, Harold W.; Nixon, John F.; Maah, Mohd. Jamil; Taylor, Michael J.
CORPORATE SOURCE: Sch. Mol. Sci., Univ. Sussex, Brighton, BN1 9QJ, UK
SOURCE: Journal of the Chemical Society, Chemical Communications (1981), (4), 199-200
CODEN: JCCCAT; ISSN: 0022-4936
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB The coordination complexes cis-M(CO)4L2 (M = Cr, Mo, W), trans-RhCl(PPh3)2L, trans-RhClL2(CO), Rh(η5-indenyl)L2, cis-PtR2L2, (R = Cl, iodo, Me), and cis- and trans-PtCl2(PEt3)L [L = PR:CPh2 (R = mesityl)] were prepared by substitution of transition metal complexes with PR:CPh2 (R = mesityl) (I). I coordinates to the metal via the P lone pair.
IT 78777-19-2P 78777-20-5P 78777-26-1P
78777-34-1P 78777-35-2P 78777-36-3P
78777-37-4P 78784-52-8P 78784-53-9P
78784-54-0P 78790-07-5P 78822-10-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 78777-19-2 HCAPLUS
CN Tungsten, pentacarbonyl[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]-, (OC-6-22)- (CA INDEX NAME)



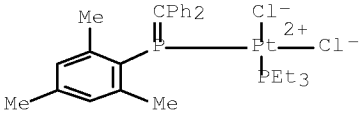


RN 78777-20-5 HCAPLUS
CN Chromium, tetracarbonylbis[(diphenylmethylene)(2,4,6-

trimethylphenyl)phosphine]-, (OC-6-22)- (CA INDEX NAME)

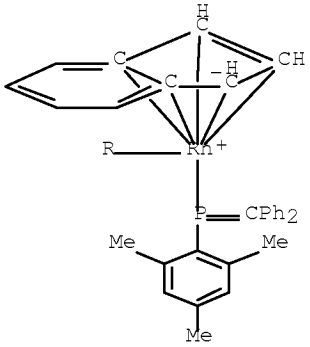


RN 78777-26-1 HCAPLUS
CN Platinum, dichloro[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine](triethylphosphine)-, (SP-4-3)- (CA INDEX NAME)

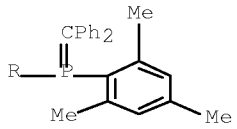


RN 78777-34-1 HCAPLUS
CN Rhodium, bis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine][(1,2,3,3a,7a-η)-1H-inden-1-yl]- (CA INDEX NAME)

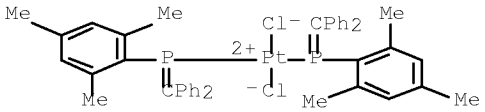
PAGE 1-A



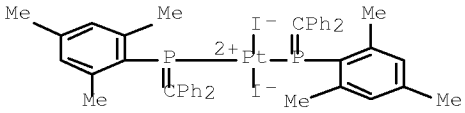
PAGE 2-A



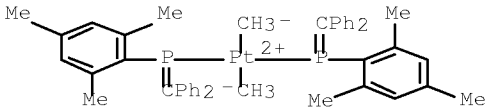
RN 78777-35-2 HCAPLUS
CN Platinum, dichlorobis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]- (CA INDEX NAME)



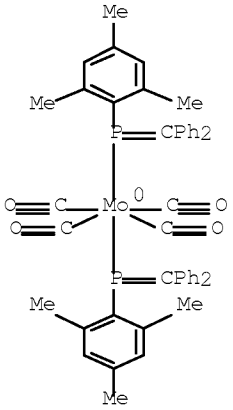
RN 78777-36-3 HCAPLUS
CN Platinum, bis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]diiodo- (CA INDEX NAME)



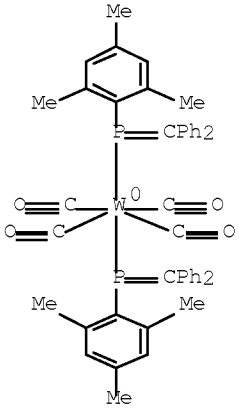
RN 78777-37-4 HCAPLUS
CN Platinum, bis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]dimethyl- (CA INDEX NAME)



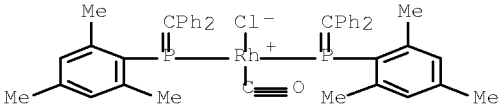
RN 78784-52-8 HCAPLUS
CN Molybdenum, tetracarbonylbis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]-, (OC-6-22)- (CA INDEX NAME)



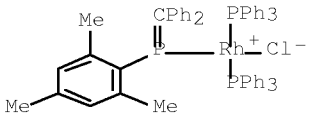
RN 78784-53-9 HCAPLUS
CN Tungsten, tetracarbonylbis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]-, (OC-6-22)- (CA INDEX NAME)



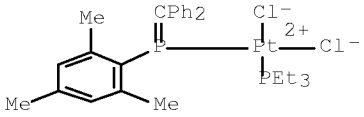
RN 78784-54-0 HCAPLUS
CN Rhodium, carbonylchlorobis[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]-, (SP-4-3)- (CA INDEX NAME)



RN 78790-07-5 HCAPLUS
CN Rhodium, chloro[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]bis(triphenylphosphine)-, (SP-4-2)- (CA INDEX NAME)

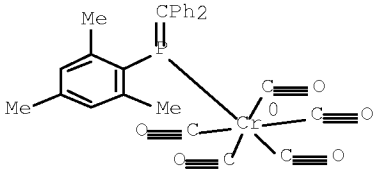


RN 78822-10-3 HCAPLUS
CN Platinum, dichloro[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine](triethylphosphine)-, (SP-4-1)- (CA INDEX NAME)

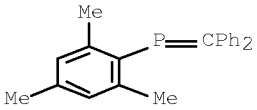


CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 78777-19-2P 78777-20-5P 78777-21-6P
78777-23-8P 78777-26-1P 78777-34-1P
78777-35-2P 78777-36-3P 78777-37-4P
78778-33-3P 78784-52-8P 78784-53-9P
78784-54-0P 78789-42-1P 78790-07-5P
78822-10-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

L39 ANSWER 25 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1981:462349 HCAPLUS Full-text
DOCUMENT NUMBER: 95:62349
ORIGINAL REFERENCE NO.: 95:10539a,10542a
TITLE: Synthesis and structure of pentacarbonyl(mesityldiphenylmethylenephosphine)chromium(0)
AUTHOR(S): Klebach, Theodorus C.; Lourens, Rimmer; Bickelhaupt, Friedrich; Stam, Casper H.; Van Herk, Alex
CORPORATE SOURCE: Vakgroep Org. Chem., Vrije Univ., Amsterdam, 1081 HV, Neth.
SOURCE: Journal of Organometallic Chemistry (1981), 210(2), 211-21
CODEN: JORCAI; ISSN: 0022-328X
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Mesityl(diphenylmethylene)phosphine (I), a stable all-C substituted phosphaalkene, reacts with Cr(CO)5·THF to furnish the title compound II, a relatively air-stable complex. Spectral data suggest a close structural similarity between the free and the complexed ligand and indicate I to be a ligand of moderate basicity towards Cr. X-ray crystal and mol. structure determination showed the phosphaalkene moiety to be nearly planar with a typically short P:C bond length of 1.679(4) Å and a C-P-C bond angle of 109.8(2)°. From a discussion of the bond lengths, it is tentatively concluded that in II, I is a π-acceptor of intermediate strength.
IT 78506-28-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)
RN 78506-28-2 HCAPLUS
CN Chromium, pentacarbonyl[(diphenylmethylene)(2,4,6-trimethylphenyl)phosphine]-, (OC-6-22)- (CA INDEX NAME)



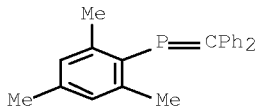
IT 67565-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with pentacarbonyl(tetrahydrofuran)chromium)
RN 67565-91-7 HCAPLUS
CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)



CC 29-11 (Organometallic and Organometalloidal Compounds)
Section cross-reference(s): 75
IT 78506-28-3P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and crystal structure of)
IT 67565-91-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with pentacarbonyl(tetrahydrofuran)chromium)

L39 ANSWER 26 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1978:509798 HCAPLUS Full-text
DOCUMENT NUMBER: 89:109798
ORIGINAL REFERENCE NO.: 89:16933a,16936a
TITLE: Synthesis of mesityldiphenylmethylenephosphine: a stable compound with a localized phosphorus:carbon bond
AUTHOR(S): Klebach, T. C.; Lourens, R.; Bickelhaupt, F.
CORPORATE SOURCE: Scheikd. Lab., Vrije Univ. Amsterdam, Amsterdam, Neth.
SOURCE: Journal of the American Chemical Society (1978), 100(15), 4886-8
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB The reaction of RPCl2 (R = 2,4,6-Me3C6H2) with Ph2CHLi gave RClPCHPh2 which, on treatment with 1,5-diazabicyclo[5.4.0]undec-5-ene, gave RP:CPh2 in almost quant. yield. Addition of HCl to RP:CPh2 yielded RClPCHPh2 and MeONa catalyzed addition of MeOH to RP:CPh2 gave R(MeO)PCHPh2 indicating a polarization of the P:C bond with P as the pos. end.
IT 67565-91-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectral properties of)
RN 67565-91-7 HCAPLUS

CN Phosphine, (diphenylmethylene)(2,4,6-trimethylphenyl)- (CA INDEX NAME)

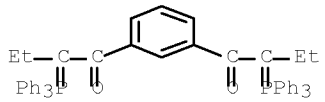


CC 29-7 (Organometallic and Organometalloidal Compounds)
IT 67565-91-7P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(preparation and spectral properties of)

L39 ANSWER 27 OF 27 HCAPLUS COPYRIGHT 2009 ACS on STN
ACCESSION NUMBER: 1973:419154 HCAPLUS Full-text
DOCUMENT NUMBER: 79:19154
ORIGINAL REFERENCE NO.: 79:3087a,3090a
TITLE: Regiospecific 1,3-dipolar cycloaddition polymerization of keto-stabilized bisalkylidenephosphoranes with bisazides
AUTHOR(S): Ykman, P.; L'Abbe, G.; Smets, G.
CORPORATE SOURCE: Dep. Chem., Univ. Louvain, Heverlee, Belg.
SOURCE: Journal of the Indian Chemical Society (1972), 49(12), 1245-50
CODEN: JICSAH; ISSN: 0019-4522
DOCUMENT TYPE: Journal
LANGUAGE: English
ED Entered STN: 12 May 1984
AB Thermostable poly(1,2,3-triazoles) [I, R = m- or p-C6H4, p-C6H4OC6H4-p-; R1 = Et, H; R2 = m-C6H4, (CH2)3, or (CH2)6] were prepared by the regiospecific reaction of bisazides with keto-stabilized bisalkylidenephosphoranes in Me2SO. All the polymers contained terminal ylide functions, and most (especially the lower mol. weight fractions) contained azide functions. I were prepared in 86-99% yield in 1-5 days at 80-100.deg.; e.g., 98% p,p'-diazidodiphenyl ether-1,6-bis(triphenylphosphoranylidene-2,6-heptanedione copolymer [I, R = p-C6H4OC6H4-p, R1 = H, R2 = (CH2)3] [40715-84-2] was prepared after 36 hr at 80.deg.. The bisylides were prepared by treating bisacyl chlorides with 4 equivalent alkylidenephosphoranes in benzene, or by treating 4 equivalent alkylidenephosphoranes in benzene, or by treating bisthio esters with 2 equivalent of alkylidenephosphoranes in refluxing PhMe.
IT 41900-78-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, regiospecific)
RN 41900-78-1 HCAPLUS
CN 1-Butanone, 1,1'-(1,3-phenylene)bis[2-(triphenylphosphoranylidene)-, polymer with 1,4-diazidobenzene (9CI) (CA INDEX NAME)

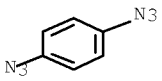
CM 1

CRN 41726-53-8
CMF C50 H44 O2 P2



CM 2

CRN 2294-47-5
CMF C6 H4 N6



CC 35-3 (Synthetic High Polymers)
Section cross-reference(s): 29
IT 40715-84-2P 41900-78-1P 41900-79-2P 41900-80-5P
41900-82-7P 41900-83-8P 41900-84-9P 41909-45-9P
41909-46-0P 41909-47-1P 41909-48-2P 41909-49-3P
41909-50-6P 41909-51-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, regiospecific)

FULL SEARCH HISTORY

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=> d his nofile

     (FILE 'HOME' ENTERED AT 14:20:57 ON 23 APR 2009)

     FILE 'HCAPLUS' ENTERED AT 14:21:26 ON 23 APR 2009
                E US20060270805/PN
L1            1 SEA SPE=ON  ABB=ON  PLU=ON  US20060270805/PN
                D ALL
                SEL RN

     FILE 'REGISTRY' ENTERED AT 14:22:39 ON 23 APR 2009
L2           21 SEA SPE=ON  ABB=ON  PLU=ON  (501418-46-8/BI OR
                10544-50-0/BI OR 109-72-8/BI OR 119-61-9/BI OR
                14044-65-6/BI OR 2094-98-6/BI OR 334992-56-2/BI OR
                501418-47-9/BI OR 591-51-5/BI OR 67565-91-7/BI OR
                68357-99-3/BI OR 713542-93-9/BI OR 713542-95-1/BI OR
                713542-97-3/BI OR 713542-99-5/BI OR 713543-00-1/BI OR
                713543-01-2/BI OR 713543-02-3/BI OR 713543-03-4/BI OR
                7722-84-1/BI OR 917-54-4/BI)
                D SCA

     FILE 'STNGUIDE' ENTERED AT 14:23:02 ON 23 APR 2009

     FILE 'REGISTRY' ENTERED AT 14:25:35 ON 23 APR 2009
L3           12 SEA SPE=ON  ABB=ON  PLU=ON  L2 AND P/ELS
                D SCA
L4            9 SEA SPE=ON  ABB=ON  PLU=ON  L2 AND PMS/CI
                D SCA
L5            9 SEA SPE=ON  ABB=ON  PLU=ON  L3 AND L4
L6            3 SEA SPE=ON  ABB=ON  PLU=ON  L3 NOT L4
                D SCA

     FILE 'STNGUIDE' ENTERED AT 14:28:13 ON 23 APR 2009
                D SCA L5

     FILE 'REGISTRY' ENTERED AT 14:56:36 ON 23 APR 2009
                D SCA L5

     FILE 'LREGISTRY' ENTERED AT 14:56:53 ON 23 APR 2009
L7              STR

     FILE 'REGISTRY' ENTERED AT 14:58:35 ON 23 APR 2009
L8           50 SEA SSS SAM L7

     FILE 'REGISTRY' ENTERED AT 14:59:02 ON 23 APR 2009

     FILE 'LREGISTRY' ENTERED AT 14:59:04 ON 23 APR 2009
L9              STR L7

     FILE 'REGISTRY' ENTERED AT 14:59:33 ON 23 APR 2009
L10          50 SEA SSS SAM L9
L11           1 SEA SPE=ON  ABB=ON  PLU=ON  L2 AND "(C22 H21 P . C5 H8
                O2)X"/MF
                D
                E 67565-91-7/RN
L12           1 SEA SPE=ON  ABB=ON  PLU=ON  67565-91-7/RN
                D SCA

     FILE 'LREGISTRY' ENTERED AT 15:03:10 ON 23 APR 2009
L13             STR  67565-91-7

     FILE 'REGISTRY' ENTERED AT 15:03:38 ON 23 APR 2009
                D QUE STAT L10
                E STYRENE/CN
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L14           1 SEA SPE=ON  ABB=ON  PLU=ON  STYRENE/CN
                D
L15       81738 SEA SPE=ON  ABB=ON  PLU=ON  100-42-5/CRN

     FILE 'LREGISTRY' ENTERED AT 15:11:20 ON 23 APR 2009
L16             STR

     FILE 'REGISTRY' ENTERED AT 15:12:01 ON 23 APR 2009
L17          50 SEA SSS SAM L16

     FILE 'LREGISTRY' ENTERED AT 15:13:28 ON 23 APR 2009
L18             STR L16

     FILE 'REGISTRY' ENTERED AT 15:18:10 ON 23 APR 2009
L19       10854 SEA SSS FUL L16
L20          10 SEA SPE=ON  ABB=ON  PLU=ON  L2 AND L19
                D QUE L18
L21           0 SEA SUB=L19 SSS SAM L18
L22           2 SEA SUB=L19 SSS FUL L18
                D SCA
                D L22 1-2 RN
L23           1 SEA SPE=ON  ABB=ON  PLU=ON  89982-81-0/RN
                D
L24           0 SEA SPE=ON  ABB=ON  PLU=ON  89982-81-0/CRN
L25           1 SEA SPE=ON  ABB=ON  PLU=ON  89982-79-6/RN
                D
                D CRN
L26           0 SEA SPE=ON  ABB=ON  PLU=ON  89982-79-6/CRN
                SAV TEMP L19 PEZ397REG/A
L27           2 SEA SPE=ON  ABB=ON  PLU=ON  L19 AND L15
                SAV TEMP L27 PEZ397REGA/A
                D QUE STAT L22
                SAV TEMP L2 PEZ397REGB/A
                D QUE STAT
                D QUE STAT L17
                D QUE STAT L18
L28           0 SEA SUB=L19 SSS SAM L18
                D QUE STAT

     FILE 'LREGISTRY' ENTERED AT 15:28:00 ON 23 APR 2009
L29             STR L18

     FILE 'REGISTRY' ENTERED AT 15:28:36 ON 23 APR 2009
L30           2 SEA SUB=L19 SSS SAM L29
L31          42 SEA SUB=L19 SSS FUL L29
L32           2 SEA SPE=ON  ABB=ON  PLU=ON  L22 AND L19
                D SCA
L33          15 SEA SPE=ON  ABB=ON  PLU=ON  L19 AND PMS/CI
L34          50 SEA SPE=ON  ABB=ON  PLU=ON  L27 OR (L31 OR L32 OR L33)


     FILE 'HCAPLUS' ENTERED AT 15:37:20 ON 23 APR 2009
L35          40 SEA SPE=ON  ABB=ON  PLU=ON  L34
L36           1 SEA SPE=ON  ABB=ON  PLU=ON  L1 AND L35
L37             QUE SPE=ON  ABB=ON  PLU=ON  PY=<2003 NOT P/DT
L38             QUE SPE=ON  ABB=ON  PLU=ON  (PY=<2003 OR PRY=<2003 OR
                AY=<2003 OR MY=<2003 OR REVIEW/DT) AND P/DT
L39          27 SEA SPE=ON  ABB=ON  PLU=ON  L35 AND (L37 OR L38)
                D QUE L27
                SAV TEMP L39 PEZ397HCP/A
                D QUE STAT L39
                D L39 1-27 IBIB ED ABS HITSTR HITIND
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